

ABSTRACT OF THE DISCLOSURE

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A system for abating undesired component(s) from a gas stream containing same, such as halocompounds, acid gases, silanes, ammonia, etc., by scrubbing of the effluent gas stream with an aqueous scrubbing medium. Halocompounds, such as fluorine, fluorides, perfluorocarbons, and chlorofluorocarbons, may be scrubbed in the presence 10 of a reducing agent, e.g., sodium thiosulfate, ammonium hydroxide, or potassium iodide. In one embodiment, the scrubbing system includes a first acid gas scrubbing unit operated in cocurrent gas/liquid flow, and a second "polishing" unit operated in countercurrent gas/liquid flow, to achieve high removal efficiency with low consumption of water. The scrubbing system may utilize removable insert beds of 15 packing material, packaged in a foraminous containment structure. The abatement system of the invention has particular utility in the treatment of semiconductor manufacturing process effluents.